

List of All Chemicals

P *Scutellaria galericulata* (Lamiaceae)

Common name(s)

Marsh Skullcap

How used

Medicinal

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

Chemical	Plant Part	Low PPM	High PPM	StdDev	*Reference
6-HYDROXY-LUTEIN	Plant	--	--		Abstract (See species file)
ALPHA-HUMULENE	Plant	--	16.0	-0.63	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities (2)

Antitumor Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove (*Eugenia caryophyllata*) As Potential Anticarcinogenic Agents. *Journal of Natural Products* 55(7): 999-1003, 1992.

Perfumery Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants*. Taylor & Frost, London. 791 pp.

APIGENIN	Plant	--	--	Abstract (See species file)
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Activities (101)

11B-HSD-Inhibitor

AntiADD

AntiHIV IC72=200 ug/ml

AntiHIV IC50=143 ug/ml

Antiaflatoxin IC50=9.52 uM

Antiaflatoxin IC50=2.57 ppm

Antiaggregant

Antiaaging

Antiallergic Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antiangiogenic 4 uM

Antiarrhythmic

Antibacterial Recio, M. C., Rios, J. L., and Villar, A., A review of some antimicrobial compounds isolated from medicinal plants reported in the literature 1978-1988, *Phytotherapy Research*, 3(4), 1989, 117-125.

Anticancer (Lung)

Anticomplementary

Antidermatitic Bisset, N.G., ed. 1994. *Herbal Drugs and Phytopharmaceuticals*. CRC Press. Boca Raton, FL. 566 pp.

Antiestrogenic

Pizzorno, J.E. and Murray, M.T. 1985. *A Textbook of Natural Medicine*. John Bastyr College Publications, Seattle, Washington (Looseleaf).

Antiherpetic 20-54 ug/ml

Antihistaminic IC50=10-35 uM

Antiinflammatory #NAME?

Antiinflammatory IC~65=1,000 uM

Antileukemic 20-50 uM

Antimelanomic 1-50 uM

Antimetastatic 1-50 uM

Antimutagenic ID50=10-40 nM Phenolic Compounds in Food and Their Effects on Health. *Antioxidants & Cancer Prevention*. Huang, M.T., Ho, C.T. and Lee, C.Y. eds. 1992. ACS Symposium Series 507. ACS, Washington 402 pp.

Antimutagenic ID50=0.55 ug/ml

Antioxidant 1.5 x Vit. E

Antioxidant IC28.5=62.5 ug/ml

Antiperistaltic

Antiproliferant 1-50 uM

Antiproliferant IC50=155 uM

Antispasmodic EC50=1-5 uM

Antistress 10 mg/kg

Antithyroid Jim Duke's personal files.

Antitumor 1-50 uM

Antitumor (Breast) 1-50

Antitumor (Lung)	
Antitumor (Skin)	
Antiviral 20-54 ug/ml	
Anxiolytic 10 mg/kg	
Apoptotic 12-60 uM	
Aromatase-Inhibitor IC50=1 uM/l	Journal of Medicinal Food 2: 235.1999.
Beta-Glucuronidase-Inhibitor IC50=~40 uM	
CNS-Depressant	
COX-1-Inhibitor IC50=1,000 uM	
COX-2-Inhibitor IC>65=1,000 uM	
COX-2-Inhibitor <40 uM	
COX-2-Inhibitor IC50=<15 uM	
Calcium-Antagonist?	Biochimica & Biophysica Acta, 1115: 69, 1991.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Choleretic	
Cyclooxygenase-Inhibitor	
Cytochrome-P450-1A1-Inhibitor	
Cytotoxic IC88=10 ug/ml	Planta Medica, 57: A113, 1991.
Cytotoxic 1-50 uM	
Cytotoxic IC50=9.5 uM	
DNA-Protective	
Deiodinase-Inhibitor	Jim Duke's personal files.
Differentiator MIC=30 uM	
Differentiator IC40=40 uM	
Diuretic	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Estrogenic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
Estrogenic 16% genistein	
Estrogenic EC50=1 uM	
HIF-1alpha-Inhibitor	
Hyaluronidase-Inhibitor IC50+=50-250 uM	
Hypotensive	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
ICAM-1-Inhibitor	
IKK-Inhibitor	
Inotropic	
Interleukin-6-Inhibitor	
MAO-Inhibitor	
MAPK-Inhibitor	
Musculotropic	Wichtl, M. 1984. Teedrogen. Ein Handbuch fur Apotheker und Arzte. Wissenschaftliche Verlagsgesellschaft. mbH Stuttgart. 393 pp.
Mutagenic	
Myorelaxant	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
NADH-Oxidase-Inhibitor	
NF-kB-Inhibitor	
NO-Synthase-Inhibitor 5-50 uM	
Nodulation-Signal	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Ornithine-Decarboxylase-Inhibitor	
P21-Inducer 10-70 uM	
PKC-Inhibitor IC50=10 uM	
PTK-Inhibitor 10-100 uM	
Pesticide	
Polyamine-Synthesis-Inhibitor	
Progesterone	
Protein-Kinase-C-Inhibitor IC50=10-40 uM	
Quinone-Reductase-Inducer 20 uM	Uda, Y., Price, K. R., Williamson, G., Rhodes, M. J. C. 1997. Induction of the Anticarcinogenic Marker Enzyme, Quinone Reductase, in Murine Hepatoma Cells In Vitro by Flavonoids. <i>Cancer Lett.</i> , 120 (2): 213-216.
Radioprotective	
Sedative 30-100 mg/kg	
Sunscreen	
TNF-alpha-Inhibitor IC50=3.27 uM	

Topoisomerase-II-Inhibitor 50 ug/ml	Azuma, Y., Onishi, Y., Sato, Y., Kizaki, H. 1995. Effects of Protein Tyrosine Kinase Inhibitors With Different Modes of Action on Topoisomerase Activity and Death of IL-2-Dependent CTLL-2-Cells. <i>J Biochemistry</i> , 118: 312-318.
Topoisomerase-II-Inhibitor IC28=18 uM	
Topoisomerase-II-Inhibitor IC45=180 uM	
Uterotrophic EC50=0.1-25 uM/l	Journal of Medicinal Food 2: 227.1999.
VEGF-Inhibitor IC50=2-7 uM	
Vasodilator	
Xanthine-Oxidase-Inhibitor 0.36 uM	
iNOS-Inhibitor IC50=<15 uM	

BAICALEIN	Plant	--	--	Abstract (See species file)
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Activities (50)

12-Lipoxygenase-Inhibitor	
17-beta-hydroxysteroid dehydrogenase-Inhibitor 9.3 uM	
5-Lipoxygenase-Inhibitor IC50=0.1-5 uM	
Aldose-Reductase-Inhibitor IC50=0.98 ppm	Kohda, H., Tanaka, S., Yamaoka, Y., Yahara, S., Nohara, T., Tanimoto, T., Tanaka, A. 1989. Studies on Lens-Aldose-Reductase Inhibitor in Medicinal Plants.II Active Constituents of Monochasma savatieri FRANCH. et MAXIM. <i>Chem. Pharm. Bull.</i> 37(11):3153-3154
Aldose-Reductase-Inhibitor IC62=10 uM	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.
Aldose-Reductase-Inhibitor IC50=0.98 rbt	Kohda, H., Tanaka, S., Yamaoka, Y., Yahara, S., Nohara, T., Tanimoto, T., Tanaka, A. 1989. Studies on Lens-Aldose-Reductase Inhibitor in Medicinal Plants.II Active Constituents of Monochasma savatieri FRANCH. et MAXIM. <i>Chem. Pharm. Bull.</i> 37(11):3153-3154
AntiHIV	
Antiacne	
Antiaggregant ED50=120-200 mg/kg	Butenko, I.G., Gladtchenko, S.V., and Galushko, S.V. Anti-inflammatory properties and inhibition of leukotriene C4 biosynthesis in vitro by flavonoid baicalein from <i>Scutellaria baicalensis</i> georgy roots. <i>Agents Actions</i> 39: C49, 1993.
Antiallergic	Williamson, E. M. and Evans, F. J. <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antiarthritic IC28=20 mg/kg scu rat	
Antiasthmatic	
Antiatherosclerotic IC50=3.5-8.6 uM	
Antibacterial	Foster, S. and Yue, C-G. 1992. <i>Herbal Emissaries-Bringing Chinese Herbs to the West</i> . Healing Arts Press, Rochester VT. 356 pp.
Anticolic 20 mg/kg	
Antidermatitic	
Antidote (Strychnine) 10 mg mus	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antiedemic IC28=20 mg/kg scu rat	
Antiflu	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antigenotoxic IC50=22-34 uM	
Antihepatomic	
Antihistaminic	
Antiinflammatory IC28=20 mg/kg scu rat	
Antiinflammatory IC50=0.1-5 uM	
Antileukemic IC50=0.26 ug/ml	Life Sciences 55: 1061.
Antileukemic 2 ug/ml	Economic & Medicinal Plant Research, 5: 225.
Antimutagenic	
Antiproliferative	Huang, H-C., Wang, H-R., and Hsieh, L-M. 1993. Antiproliferative effect of baicalein, a flavonoid from a Chinese herb, on vascular smooth muscle cell. <i>European J. of Pharmacology</i> 251: 91-93, 1994.
Antipyretic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antiretroviral	
Antithrombotic IC50=3.5-8.6 uM	
Antithrombotic IC50=3.7 uM	
Antitoxin (Strychnine) 10 mg mus	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Antiviral	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Apoptotic	
Astringent	Merck 11th Edition
COX-1-Inhibitor 100 ug/ml	Fukutake, M., Yokota, S., Kawamura, H., Iizuka, A., Amagaya, S., Fukuda, K., Komatsu, Y. 1998. Inhibitory effect of <i>Coptidis rhizoma</i> and <i>Scutellariae radix</i> on azoxymethane-induced aberrant crypt foci formation in rat colon. <i>Biol Pharm Bull</i> , 21(8): 814-817
COX-2-Inhibitor 100 ug/ml	
Choleretic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.
Cyclooxygenase-Inhibitor	
Diuretic	

HIV-RT-Inhibitor 2 ug/ml	Economic & Medicinal Plant Research, 5: 225.			
HIV-RT-Inhibitor IC50=<1 ug/ml	Nakane, H., Fukushima, M., and Ono*, K. Differential Inhibition Of Reverse Transcriptase And Various DNA Polymerases By Digallic Acid And Its Derivatives. <i>Journal of Natural Products</i> , 53(5): 1234-1240, 1990.			
Hypocholesterolemic				
Neuroprotective 10 uM				
Pesticide				
Topoisomerase-II-Inhibitor 200 ug/ml	Matsuzaki, Y., Kurokawa, N., Terai, S., Matsumura, Y., Kobayashi, N., Okita, K. 1996. Cell Death Induced by Baicalein in Human Hepatocellular Carcinoma Cell Lines. <i>Jap J Cancer Res</i> , 87: 170-177.			
Triglycerolytic				
Xanthine-Oxidase-Inhibitor IC50=3 uM				

BAICALEIN-7-BETA-L-RHAMNOside	Plant	--	--	*
BAICALIN	Leaf	--	10000.0	List, P.H. and Horhammer, L, Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.

Activities (40)

Aldose-Reductase-Inhibitor IC42=10 uM	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.			
Aldose-Reductase-Inhibitor IC50=13.6 uM rat	Shin, K. H., Chae, Y. J., Chung, M. S., Lee, H. J. 1994. Effect of Flavonoids from <i>Scutellariae radix</i> on Cataract Formation and Polyol Accumulation in Rat Lens. <i>Korean J Pharmacog</i> , 25(1): 41-46.			
AntiHIV	Cell Mol. Biol. Res. (Vol 39=1993)			
Antiaggregant				
Antiallergic	Williamson, E. M. and Evans, F. J., <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.			
Antianaphylactic	Abe, K-i., Inoue, O., and Yumioka, E. 1989. Biliary Excretion of Metabolites of Baicalin and Baicalein in Rats. <i>Chem. Pharm. Bull.</i> 38(1): 208-211, 1990.			
Antiarthritic IC37=10 mg/kg scu rat				
Antiasthmatic				
Anticholinergic				
Antiedemic IC37=10 mg/kg scu rat				
Antihepatotoxic				
Antihepatotoxic 500 mg/man/day				
Antihistaminic				
Antiinflammatory IC37=10 mg/kg scu rat				
Antilaryngitic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.			
Antinephritic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.			
Antioxidant	Journal of Nutritional and Environmental Medicine. 1997. Volume 7: 79.			
AntipeIvitc	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.			
Antipharyngitic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.			
Antiproliferative				
Antipyretic	Foster, S. and Yue, C-G. 1992. <i>Herbal Emissaries-Bringing Chinese Herbs to the West</i> . Healing Arts Press, Rochester VT. 356 pp.			
Antispasmodic				
Antithrombotic 0.1-1 mM	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.			
Antitonsilitic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.			
Antitumor				
Apoptotic				
Chemopreventive				
Choleretic	Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp.			
Diuretic				
Hepatoprotective	Journal of Nutritional and Environmental Medicine. 1997. Volume 7: 79.			
Hypocholesterolemic				
Hypotensive	Foster, S. and Yue, C-G. 1992. <i>Herbal Emissaries-Bringing Chinese Herbs to the West</i> . Healing Arts Press, Rochester VT. 356 pp.			
Neuroprotective 10 uM				
Quinone-Reductase-Inducer				
Sedative	Foster, S. and Yue, C-G. 1992. <i>Herbal Emissaries-Bringing Chinese Herbs to the West</i> . Healing Arts Press, Rochester VT. 356 pp.			
Sialidase-Inhibitor	Lawrence Review of Natural Products, Jan-93.			
Tranquilizer				
Triglycerolytic				
Vasodilator				
Xanthine-Oxidase-Inhibitor IC50=215 uM				

BETA-CUBEBENE	Plant	--	20.0	0.75	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980</i> .
CARYOPHYLLENE	Plant	--	176.0	-0.34	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980</i> .

Aldose-Reductase-Inhibitor	
Allergenic	
Analgesic	Taylor, Leslie. 2005. <i>The Healing Power of Rainforest Herbs</i> . SquareOne Publisher, Garden City Park, NY. 519 pp.
Antiacne	
Antiasthmatic	Leung, A. Y. and Foster, S. 1995. <i>Encyclopedia of Common Natural Ingredients</i> 2nd Ed. John Wiley & Sons, New York. 649 pp.
Antibacterial	
Anticariogenic MIC=>1,600 ug/ml	Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . <i>J. Agric. Food Chem.</i> 41: 1102-1105.
Antidermatitic	
Antiedemic	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' (<i>Lavandula latifolia</i> Vill.)2). <i>Chem. Pharm. Bull.</i> 38(8): 2283-2284, 1990.
Antifeedant 500 ppm	Keeler, R.F. and Tu, A.T. eds. 1991. <i>Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6)</i> Marcel Dekker, Inc. NY. 665 pp.
Antiinflammatory IC50=100 uM	Shimizu,*M., et al. 1990. Anti-inflammatory Constituents of Topically Applied Crude Drugs. IV.1) Constituents and Anti-inflammatory Effect of Paraguayan Crude Drug 'Alhucema' (<i>Lavandula latifolia</i> Vill.)2). <i>Chem. Pharm. Bull.</i> 38(8): 2283-2284, 1990.
Antileishmanic	
Antionychyotic	Taylor, Leslie. 2005. <i>The Healing Power of Rainforest Herbs</i> . SquareOne Publisher, Garden City Park, NY. 519 pp.
Antiproliferant	
Antispasmodic	
Antistaphylococcic	
Antistreptococcic	
Antitumor	Zheng, G-Q., Kenney, P.M., and Lam, L.K.T. Sesquiterpenes From Clove (<i>Eugenia caryophyllata</i>) As Potential Anticarcinogenic Agents. <i>Journal of Natural Products</i> 55(7): 999-1003, 1992.
Antiulcer	Taylor, Leslie. 2005. <i>The Healing Power of Rainforest Herbs</i> . SquareOne Publisher, Garden City Park, NY. 519 pp.
Candidicide	
FLavor FEMA 20-200	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Gastroprotective	Taylor, Leslie. 2005. <i>The Healing Power of Rainforest Herbs</i> . SquareOne Publisher, Garden City Park, NY. 519 pp.
Insectifuge	
Irritant	Zebowitz, T. C. Ed. 1989. Part VII. <i>Flavor and Fragrance Substances</i> , in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253.
Larvicide	
Mosquitocide	
Perfumery	Merck 11th Edition
Pesticide	
Sedative	
Termitifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.

CHRYSIN

Plant -- -- *

Activities (60)

AntiHIV	
AntiMDR	
Antiaflatoxin IC50=8.19 uM	
Antiaflatoxin IC50=2.08 ppm	
Antiaggregant	
Antiallergic	Pizzorno, J.E. and Murray, M.T. 1985. <i>A Textbook of Natural Medicine</i> . John Bastyr College Publications, Seattle, Washington (Looseleaf).
Antiangiogenic	
Antibacillary	
Antibacterial	
Anticonvulsant	
Antiestrogenic	
Antigout	
Antiherpetic 40-75 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992.
Antihypertensive	
Antileukemic >genistein	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antiproliferant	
Antiproliferant >genistein	
Antiproliferant (colon)	
Antisalmonella	
Antishigellic	
Antispasmodic	Biochem Pharmacol, 40(10): 2227.
Antistaphylococcic	
Antistress	

Antitumor (Breast)	
Antitumor (Colon)	
Antiviral 40-75 ug/ml	Amoros, M., Simoes, C.M.O., Girre, L., et al. Synergistic Effect Of Flavones And Flavonols Against Herpes Simplex Virus Type 1 In Cell Culture. Comparison With The Antiviral Activity Of Propolis. <i>J. of Natural Products</i> 55(12):1732-1740, 1992.
Anxiolytic	
Apoptotic	
Aromatase-Inhibitor IC80=1 uM/l	
CNS-Depressant	
CYP1A1-Inhibitor	
Cancer-Preventive	
Caspase-3-Inhibitor	
Caspase-9-Inhibitor	
Cytotoxic >genistein	
Cytotoxic	
DNA-Protective	
Estrogenic	
Fungicide 2.5 mM	Geibel, M. 1994. Sensitivity of the Fungus <i>Cytospora persoonii</i> to the Flavonoids of <i>Prunus cerasus</i> . <i>Phytochemistry</i> . 38(3): 599-601. 1995.
Hepatoprotective IC50=8.19 uM	
Hepatoprotective IC50=2.08 ppm	
Hypotensive	
Hypouricemic	
ICAM-1-Inhibitor	
JNK-Inhibitor	
MAO-Inhibitor	
Mutagenic	
Myorelaxant	
NO-Genic	
Pesticide	
Radioprotective	
Termitifuge	Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Testosterogenic	
Topoisomerase-I-Inhibitor	Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237.
VEGF-Inhibitor	
Vasodilator	
Vasorelaxant	
Xanthine-Oxidase-Inhibitor	

CHRYSIN-7-GLUCURONIDE	Plant	--	27000.0	List, P.H. and Horhammer, L., <i>Hager's Handbuch der Pharmazeutischen Praxis</i> , Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.	
DIHYDROBAICALIN	Plant	--	--	Abstract (See species file)	
DIHYDRONORWOGONIN	Plant	--	--	Abstract (See species file)	
EO	Plant	--	600.0	-0.69	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980</i> .
GERMACRENE-D	Plant	--	13.0	-0.41	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980</i> .

Activities (2)

Pesticide
Pheromone

LIMONENE	Plant	--	13.0	-0.48	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980</i> .
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Activities (60)

AChE-Inhibitor	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8.
Acaricide LC100=8 uM	
Allelochemic	
Allergenic 1/20th carene	
Antiacylcholinesterase IC22-26=1.2 mM	
Antiadrenomimetic	
Antialzheimeran?	Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8.
Antiasthmatic	
Antibacterial	Revista Itiliana Eppos, 12: 5, 1994.
Anticancer	

Antifeedant	
Antiflu	Economic & Medicinal Plant Research, 5: 195.
Antiinflammatory	
Antilithic	
Antilymphomic	
Antimetastatic (Stomach)	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antiobesity	
Antiseptic	
Antispasmodic ED50=0.197 mg/ml	Fitoterapia No.59-1984.
Antitumor	
Antitumor (Breast)	
Antitumor (Colon)	
Antitumor (Pancreas)	
Antitumor (Prostate)	
Antitumor (Stomach)	
Antiviral	
Apoptotic	
Bronchoprotectant	
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidstat	
Chemopreventive	
Cholesterolytic	
Detoxicant	
Enterocontractant	J. Aromatherapy 4: 22.
Expectorant	
FLavor	
Fungiphilic	J. Agric. Food Chem. 43: 2283.
Fungistat	
GST-Inducer	
Herbicide IC50=45 uM	Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
Histaminic	
Immunomodulator	
Insecticide 0.37 uM/fly	
Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Interleukin-6-Inhibitor	
Irritant	
Lipolytic	
Myorelaxant 50 mg/kg	
NO-Genic	
Nematicide IC=100 ug/ml	Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp.
Ornithine-Decarboxylase-Inhibitor ~750 mg/kg (diet)	
Ozone-Scavenger	
P450-Inducer	
Peristaltic	
Pesticide	
Photosensitizer	Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp.
Sedative ED=1-32 mg/kg	Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Transdermal	

LUTEOLIN Plant -- -- Abstract (See species file)

Activities (78)

Aldose-Reductase-Inhibitor EC=3 ppm	Shin*, K.H., Chung, M.S., Chae, Y.J., Yoon, K.Y., Cho, T.S. 1992. A survey for aldose reductase inhibition of herbal medicines. Fitoterapia 64(2): 130, 1993.
Aldose-Reductase-Inhibitor IC50=0.45 uM rat	
AntiHIV	
Antiallergic	
Antiangiogenic IC60-75=10 ⁻⁶ uM	
Antiatherogenic	
Antibacterial MIC=500 ug/ml	Planta Medica, 57: A43, 1991.
Anticarcinogenic	
Anticarcinomic	Chiang, L.C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. Am J Chin Med, 31(1):37-46.

Anticomplementary	
Antidermotic	Bisset, N.G., ed. 1994. <i>Herbal Drugs and Phytopharmaceuticals</i> . CRC Press. Boca Raton, FL. 566 pp.
Antiestrogenic	
Antifeedant IC50=<1,000 ppm diet	Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, <i>Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology</i> , v. 4, Oryx Press, Phoenix, 1989, 267pp.
Antiherpetic 11-23 ug/ml	
Antihistaminic <10-15 uM	
Antiinflammatory #NAME?	Wichtl, M. 1984. <i>Teedrogen. Ein Handbuch fur Apotheker und Arzte</i> . Wissenschaftliche Verlagsgesellschaft mbH Stuttgart. 393 pp.
Antileukemic 20-50 uM	
Antilymphomeric	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antimelanomic	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antimutagenic ID50=2-5 nM	
Antimutagenic ID50=0.44 ug/ml	
Antinociceptive	
Antioxidant IC50=10 uM	
Antipolio	Economic & Medicinal Plant Research, 5: 197.
Antiproliferant	
Antispasmodic	Williamson, E. M. and Evans, F. J. <i>Potter's New Cyclopaedia of Botanical Drugs and Preparations</i> , Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
Antitumor 1-50 uM	
Antitumor (Colon)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor (Kidney)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor (Lung)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor (Ovary)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor (Pancreas)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor (Skin) 20 uM	
Antitumor (Stomach)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitumor (Thyroid) 12-50 uM	
Antitumor (brain)	Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46.
Antitussive	
Antiviral 11-23 ug/ml	
Aphidifuge	
Apoptotic 12-50 uM	
Aromatase-Inhibitor IC35=1 uM/l	Journal of Medicinal Food 2: 235.1999.
Beta-Glucuronidase-Inhibitor IC50=<~40 uM	
Calcium-Antagonist IC50=1.2 uM rbt	
Cancer-Preventive	
Chemopreventive	
Choleretic	
Cytotoxic 1-50 uM	
Deiodinase-Inhibitor	Jim Duke's personal files.
Differentiator IC>40=40 uM	
Diuretic	Jim Duke's personal files.
Estrogenic 58% genistein	
Hepatoprotective	
Hyaluronidase-Inhibitor IC50+=100-250 uM	
Hypocholesterolemic	
ICAM-1-Inhibitor	
IKK-Inhibitor	
Iodothyronine-Deiodinase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp.
Lipoxygenase-Inhibitor	
MAPK-Inhibitor	
MMP-9-Inhibitor 20 uM	
Metalloproteinase-Inhibitor	
Myorelaxant	
NEP-Inhibitor IC50=>42 uM	
NF-kB-Inhibitor	
NO-Inhibitor	

Pesticide	
Proliferant	
Prostaglandin-Synthetase-Inhibitor	
Protein-Kinase-C-Inhibitor	
IC70=50 μ M	
Succinoxidase-Inhibitor	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
TNF-alpha-Inhibitor	
IC50=14.44 μ M	
Topoisomerase-I-Inhibitor	Santti, R., Makela, S., Strauss, L., Korman, J., Kostian, M. L. 1998. Phytoestrogens: Potential Endocrine Disruptors in Males. <i>Toxicol Ind Health</i> , 14: 223-237.
VEGF-Inhibitor	IC50=2-7 μ M
Vasodilator	
Xanthine-Oxidase-Inhibitor	Chem. & Pharm. Bull. 38: 1772.
IC50=0.11 μ g/ml	
iNOS-Inhibitor	

MENTHONE	Plant	--	62.0	-0.51	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
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Activities (30)

Acaricide	
Allelopathic	
Analgesic	
Antiacetylcholinesterase	
IC50=1.4 mM	
Antiaggregant	IC50=750
Antiallergic	J. Food Hyg. Soc. Jap. 33(6): 569.
Antibacterial	MIC=1.25 mg/ml
Antibacterial	MIC=0.625-5 mg/ml
Antiescherichic	MIC=5 mg/ml
Antihistaminic	J. Food Hyg. Soc. Jap. 33(6): 569.
Antilisteria	MIC=1.25 mg/ml
Antisalmonella	MIC=5 mg/ml
Antiseptic	2.25 x phenol Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
Antispasmodic	ED50=0.044 mg/ml Fitoterapia No.59-1984.
Antistaphylococci	MIC=0.625-2.5 mg/ml
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Candidicide	MIC=2.5 mg/ml
Cerebrotoxic	orl man J. Aromatherapy 4: 24.
Culicide	LC50=156-194 mg/l
FLavor FEMA 5-50	Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
Fungicide	
Insecticide	LC50=156-194 mg/l
Larvicide	LC50=156-194 mg/l
Mutagenic	
Nematicide	MLC=1 mg/ml Shoyakugaku Zasshi, 44: 183.
Perfumery	Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
Pesticide	
Psychoactive	
Sedative	Ortiz de Urbina, A.V., Martin*, M.L., Montero, M.J., Moran, A., and San Roman, L. 1988. Sedating and Antipyretic Activity of the Essential Oil of Calamintha sylvatica subsp. Ascendens. <i>Journal of Ethnopharmacology</i> , 25: 165-171, 1989.
Trichomonicide	
LD100=600 μ g/ml	

OROXYLIN-A	Plant	--	--	Abstract (See species file)
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Activities (4)

Aldose-Reductase-Inhibitor	Shin, K. H., Chae, Y. J., Chung, M. S., Lee, H. J. 1994. Effect of Flavonoids from Scutellariae radix on Cataract Formation and Polyol Accumulation in Rat Lens. <i>Korean J Pharmacog</i> , 25(1): 41-46.
Antiaggregant	
Antimutagenic	Economic & Medicinal Plant Research, 6: 235.
Antithrombic	

Activities (7)

Aldose-Reductase-Inhibitor IC50=10uM; IC10=1uM	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose Reductase by Flavonoids. <i>Phytochemistry</i> , 23: 1885-1888.
Antihemolytic	
Antileukemic IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Antioxidant ED=uM	
Antiviral IC50=10 uM	Economic & Medicinal Plant Research, 5: 225.
Cancer-Preventive	Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.
Phospholipase-A2-Inhibitor	Somasundaram, S., Sadique, J. 1985. Anti-hemolytic Effect of Flavonoidal Glycosides of Clerodendron inerme: An in vitro Study. <i>Fitoterapia</i> 57(2): 103, 1986.

TANNIN

Plant 28600.0 35000.0 -0.71 Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities (35)

Anthelmintic	
AntiHIV	
Antibacterial	
Anticancer	
Anticariogenic	
Antidiarrheic	
Antidisenteric	
Antihepatotoxic	
Antihypertensive	
Antilipolytic	
Antimutagenic	
Antinephritic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Antiophidic	Economic & Medicinal Plant Research, 5: 363.
Antioxidant IC50=1.44 ug/ml	
Antioxidant 1/3 quercetin	
Antiradicular 500 mg/kg/day orl mus	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Antiradicular 1/3 quercetin	
Antirenitic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Antitumor	
Antitumor-Promoter	
Antiulcer	
Antiviral	
Cancer-Preventive	HerbalGram No. 22 - Spring 1990, page 14.
Carcinogenic	
Chelator	
Cyclooxygenase- Inhibitor	
Glucosyl- Transferase-Inhibitor	
Hepatoprotective	
Immunosuppressant	
Lipoxygenase- Inhibitor	
MAO-Inhibitor	
Ornithine- Decarboxylase- Inhibitor	
Pesticide	
Psychotropic	Uchida, U., Ohta, H., Niwa, M., Mori, A., Nonaka, G-i., Nishioka, I., and Zaki, M. 1989. Prolongation of Life Span of Stroke-Prone Spontaneously Hypertensive Rats (SHRSP) Ingesting Persimmon Tannin. <i>Chem. Pharm. Bull.</i> 38(4): 1049-1052, 1990.
Xanthine-Oxidase- Inhibitor	

TRANS-BETA-FARNESENE Plant -- 102.0 -0.36 Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities (2)

Insectifuge	Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990.
Pesticide	

WOGONIN

Plant -- -- Abstract (See species file)

Activities (16)

Aldose-Reductase-Inhibitor	Shimizu, M., Ito, T., Terashima, S., Hayashi, T., Arisawa, M., Morita, N., Kurokawa, S., Ito, K., and Hashimoto, Y. 1984. Inhibition of Lens Aldose
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Aldose-Reductase-Inhibitor IC50=48 uM rat	Shin, K. H., Chae, Y. J., Chung, M. S., Lee, H. J. 1994. Effect of Flavonoids from Scutellariae radix on Cataract Formation and Polyol Accumulation in Rat Lens. <i>Korean J'Pharmacog.</i> , 25(1): 41-46.
Antiaggregant	
Antibacterial	
Antifertility 10 mg/kg/day	Singh, P., Jain, S., Bhala, M., Goyal, R.B., Jayaprakash, D., and Lohiya, N.K. Wagonin, 5,7-Dihydroxy-8-methoxyflavone as Oestrogenic and Anti-implantational Agent in the Rat. <i>Phytotherapy Research</i> 4(3): 87, 1990.
Antiimplantation	Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp.
Antiinflammatory IC50=75	Fitoterapia No.5-1990.
Antileukemic IC50=0.160 ug/ml	Life Sciences 55: 1061.
Antioxidant	
Antithrombic	
Diuretic	
Estrogenic 10 mg/kg/day	Singh, P., Jain, S., Bhala, M., Goyal, R.B., Jayaprakash, D., and Lohiya, N.K. Wagonin, 5,7-Dihydroxy-8-methoxyflavone as Oestrogenic and Anti-implantational Agent in the Rat. <i>Phytotherapy Research</i> 4(3): 87, 1990.
Lipolytic	
Pesticide	
Sialidase-Inhibitor	Lawrence Review of Natural Products, Jan-93.
Triglycerolytic	